## Red River Authority of Texas Program Updates

# CLEAN RIVERS PROGRAM 2012 ANNUAL BAC MEETING



MARCH 27, 2012 - WICHITA FALLS, TEXAS

ALLEN M. PAPPAS
RED RIVER AUTHORITY OF TEXAS
CLEAN RIVERS PROGRAM PROJECT MANAGER

### **Topics**

#### 1. Monitoring

- a. Quantity
- b. Quality
- c. Drought

#### 2. Analysis

- a. Equipment Purchases
- b. Chlorophyll-a / pheophytin
- c. Bacteria Holding Time Study

#### 3. Outreach

- a. Midwestern State University
- b. Local Cub Scout Packs

#### **Quantity**

- FY-2012
  - Approximately 23 additional monitoring locations
    - **▼** 3 in the Canadian River Basin
    - **x** 20 in the Red River Basin
- Stations were added/created to
  - Continue monitoring for long term lake/reservoir locations
  - Gather additional information at site with
    - ➤ Long-term 303(d) impairments
    - ▼ No recent data

Red River Basin Stream Sites	
• Bois D' Arc Creek @ FM 898	(Site 15036)
Buffalo Creek @ Coleman Park Road	(Site 16036)
<ul> <li>Groesbeck Creek @ SH 6</li> </ul>	(Site 20166)
<ul> <li>Holliday Creek @ Harding Street</li> </ul>	(Site 10095)
<ul> <li>Holliday Creek near WFCC Golf Course</li> </ul>	(Site 21025)
• Mud Creek @ US 259	(Site 15319)
• Red River @ SH 6	(Site 10135)
• Smith Creek @ CR 31700 near City of Paris	(Site 21026)
• Smith Creek @ Loop 286 (US 82)	(Site 21027)
<ul> <li>Sweetwater Creek @ FM 592</li> </ul>	(Site 10070)
<ul> <li>Sweetwater Creek @ US 83</li> </ul>	(Site 10072)
<ul> <li>Wichita River @ End of Eastland Lane</li> </ul>	(Site 10148)
• Wichita River @ SH 240	(Site 10150)

Added due to TCEQ funding cuts

• Wildhorse Creek @ US 277/281

Added to evaluate long-term impairment(s)

(Site 10096)

#### Red River Basin Lake/Reservoir Sites

Lake Kickapoo near Mid Dam

•	Diversion Lake near Dam	(Site 10157)
•	Farmer's Ck Reservoir/Lake Nocona near Dam	(Site 10139)
•	Lake Arrowhead Mid Lake near Dam	(Site 10142)
•	Lake Kemp near Dam	(Site 10159)
•	Lake Kemp @ North Wichita River Headwaters	(Site 10160)

(Site 10143)

### **Quality**

- Field
  - Increased QA/QC for sondes
  - Documentation of all lot numbers/serial numbers
  - Development of a standardized SOP
- Laboratory
  - Certified disposable sample containers
  - Implementation of a LIM system

#### **Drought**

- Interim Drought Guidance
  - Collect meta-data to more accurately document conditions
  - Help categorize "drought-data"
  - Prevent data from being used during future assessments
- Current Goals
  - Develop a parameter code to document drought index
  - Continue to enhance the meta-data collected during monitoring events
  - Continue to work on how to identify/tag "drought-data"

### **Analyses**

#### **Equipment Purchases**

- Fluorometer
  - Chlorophyll-*a* / Pheophytin
- Segmented Flow Analyzer
  - o TKN
  - Nitrate + Nitrite
  - o Ammonia
  - o TN
- Boat
  - Lake profiling

### **Analyses**

#### <u>Chlorophyll-a / Pheophytin</u>

- Methods
  - EPA 445.0 Fluorometric method
    - **▼** Increased sensitivity
  - Obstacles
    - ➤ High turbidity
    - ➤ Particulate/suspended matter
- Side-by-Side Study
  - o Results?
  - Scheduled to begin in-house testing in FY-2013

### **Analyses**

### **Bacteria Holding Time Study**

- Remote SWQM Locations create the need for extended holding time
  - EPA's Long Term 2 Enhanced Surface Water Treatment (LT2)
  - January 5, 2006 Federal Register Final Rule established a holding time not to exceed 30 hours
  - States have the option to extend this to 48 hours Study
- Study Details
  - Sampling period began April, 2011 through August, 2012
  - o Participating labs include: RRA, LCRA, TCEQ and IWQL

### **Public Outreach**

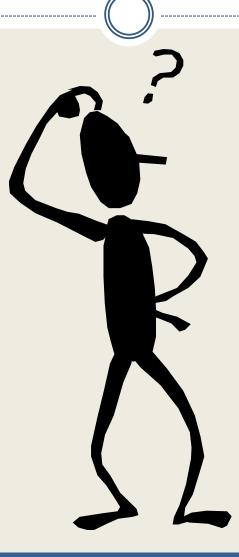
#### Midwestern State University

- Environmental Science Internship Program
  - ➤ To date we have had four interns, all of which have pursued careers in the environmental field
    - o 2 in graduate programs
    - o 1 with the Red River Authority
  - ➤ We are currently looking to potentially host another intern over the summer
- o Tours
  - MWSU Environmental Science Majors
  - ▼ Cub Scout Packs

#### **Local Cub Scout Packs**

Introduce them to water quality and how they can help

## **Questions**



### **RED RIVER AUTHORITY OF TEXAS**

Clean Rivers
Program
Partner since
1991



NELAP accredited laboratory since 2006

#### **Contact Information**

3000 Hammon Road, Wichita Falls, Texas 76310

Phone Number: (940) 723-8697 • Fax Number: (940) 723-8531

Hours of Operation: Monday -Friday 08:00 -5:00 •Emergency Laboratory Services: (940) 636-8024